



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

April 14, 2004

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTENTION: Mr. Steve Lund
NCDOT Coordinator

Dear Sir:

SUBJECT: **Nationwide Permit 12, 23 and 33 Applications** for the proposed replacement of Bridge No. 704 on SR 1319 (Johnston School Road) over tributary to Mill Creek, in Buncombe County. Federal Aid Project No. BRZ-1319(11), State Project No. 8.2844101, TIP No. B-3616.

Please find enclosed three copies of the project planning report for the above referenced project. NCDOT proposes to replace Bridge No. 740 on the existing alignment with a 119-foot triple barrel, 7.0 x 8.0-foot reinforced concrete box culvert. Two of the barrels (barrels 1 and 3) will be silled to simulate the natural width of the stream. Traffic will be maintained using two signed off-site detours consisting of US 19-23-74N, NC 63, SR 1315, and SR 1319 with a length of 4.8 miles, and US 19-23-74S, Dearview Road, Bear Creek Road, and SR 1319 with a length of 2.1 miles. There are no jurisdictional wetlands within the project area.

Impacts to Waters of the United States

Permanent Impacts: Tributary to Mill Creek will be impacted by the proposed project. Construction of the proposed project will result in total of 0.02 acres of permanent fill in surface water. In total, 119 feet of existing stream channel will be permanently impacted by this project.

Temporary Impacts: Temporary dewatering is necessary for culvert installation. The temporary dewatering will occur at the elevation and location as shown in the permit drawings. Diking materials and methods will be determined during construction by the contractor. Temporary impervious dikes and associated ponding and dewatering will result in 0.01 acres of temporary impacts affecting 55 feet of existing stream channel.

Utilities

Currently the City of Asheville has a 6" water line made of cast iron, a 16" water line made of ductile iron, and a 15" gravity sewer line made of ductile iron in the project boundaries. The 16"

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-733-3141
FAX: 919-733-9794

WEBSITE: WWW.NCDOT.ORG

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH NC

water lines will be in conflict with the proposed box culvert and will have to be relocated. The 16" pipe is currently located south of the existing bridge. NCDOT will relocate this utility to the edge of the right of way on the south side of the bridge, requiring approximately 200 feet of new pipe to be laid.

The section of stream at the utility crossing location is approximately 2 feet wide. The most environmentally sound method for this utility installation will be the use of an open cut. Though bore and jack-type construction is often used in environmentally sensitive areas, the open cut method will be less environmentally damaging in this case due to the small size of the stream.

Bridge Demolition

Bridge No. 740 in Buncombe County was built in 1976. The structure is one 26-foot span, completely spanning the tributary to Mill Creek. The height of the structure above the streambed is 8 feet. The structure of the existing bridge is composed of a timber deck on steel girders. The superstructure is composed of Yount masonry abutments. **This structure can be removed without dropping any of its components into the tributary to Mill Creek. However, the removal of the substructure and installation of a culvert will create disturbance in the streambed.** All measures will be taken to avoid any temporary fill from entering Waters of the U.S.; Best Management Practices for Bridge Demolition and Removal will be implemented.

Culvert Construction

Bridge No. 740 will be replaced with a triple-barrel 7.0 x 8.0-foot reinforced concrete box culvert. Two of the barrels (barrels 1 and 3) will be silled to simulate the natural width of the stream. Construction of the culvert will require dewatering of the natural stream channel of tributary to Mill Creek.

Construction Sequence:

1. Construct Silling Basin (34 cubic yards)
2. Construct Impervious Dikes
3. Install 24 inch Temporary Pipe
4. Construct Culvert
5. Remove Temporary Dikes and Pipe
6. Complete Roadway

Restoration Plan:

Following culvert completion, all material used in the construction of the temporary impervious dikes and temporary pipe will be removed. The stream will then be restored to its pre-project contours. The temporary impact area associated with the construction is expected to recover naturally, since the natural streambed and plant material will not be dramatically impacted.

Temporary Dewatering

There will be 55 feet of temporary impacts in tributary to Mills Creek from the construction of the proposed culvert for the replacement of Bridge No. 470. The area of temporary impacts will result from dewatering for the installation of the triple-barrel 7.0 x 8.0 foot reinforced concrete box culvert in the existing stream channel.

It is assumed that the contractor will begin construction of the proposed culvert shortly after the date of availability for the project. The Let date is August 17, 2004 with a date of availability of September 13, 2004.

Water Resources

The water resource impacted for project B-3616 is a tributary to Mill Creek, a tributary of the French Broad River. Unnamed tributaries receive the same classification as the named streams into which they flow. The North Carolina Department of Environment and Natural Resources classifies Mill Creek as "C". Class "C" waters are suitable for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, and agriculture. The classification date and index number for this portion of the creek are 7/1/73, 6-79.

There are no Outstanding Resource Waters (ORW), High Quality Waters (HQW), WS-I, or WS-II within 1 mile upstream or downstream of the project study area (DEM 1993, DWQ 2003b).

According to the North Carolina Wildlife Resource Commission, Mill Creek is not considered to be trout waters. No special restrictions are required for in-water work other than those outlined in the NCDOT guidelines, "Best Management Practices for Protection of Surface Waters".

Mill Creek is not designated as a National Wild and Scenic River or a State Natural and Scenic River.

Federally Protected Species

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered, and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2003, the Fish and Wildlife Service (FWS) lists twelve federally protected species for Buncombe County (Table 1). The Biological Conclusions for each of these species remain valid.

Biological conclusions of "No Effect" were reached for all listed species as reflected in the attached CE dated November 2002. We have updated the information for the three species that had suitable habitat within the project area: spotfin chub, Appalachian elktoe and oyster mussel. A site search for the spotfin chub was done by NCDOT biologist Mr. Neil Medlin September 12, 2002 and no individuals were found. In June 2001 NCDOT staff biologists surveyed for the Appalachian elktoe and oyster mussel with a conclusion of "No Effect".

Table 1. Federally-Protected Species for Buncombe County

Common Name	Scientific Name	Status	Biological conclusion
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A) ¹	N/A
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	E	No Effect
Eastern cougar	<i>Puma concolor couguar</i>	E	No Effect
Gray bat	<i>Myotis grisescens</i>	E**	No Effect
Spotfin chub	<i>Hybopsis monacha</i>	T*	No Effect
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	E	No Effect
Oyster mussel	<i>Epioblasma capsaeformis</i>	E***	No Effect
Bunched arrowhead	<i>Sagittaria fasciculata</i>	E*	No Effect
Mountain sweet pitcher plant	<i>Sarracenia jonesii</i>	E*	No Effect
Spreading avens	<i>Geum radiatum</i>	E	No Effect
Virginia spiraea	<i>Spiraea virginiana</i>	T	May Affect, Not Likely to Adversely Affect
Rock gnome lichen	<i>Gymnoderma lineare</i>	E	No Effect

KEY:

Status Definition

E - A taxon "in danger of extinction throughout all or a significant portion of its range."

T - A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

T(S/A) - Threatened due to similarity of appearance (e.g., *American alligator*)--a species that is threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened and are not subject to Section 7 consultation.

*Historic record - the species was last observed in the county more than 50 years ago.

**Incidental/migrant record - the species was observed outside of its normal range or habitat.

***Historic record - obscure and incidental record.

Regulatory Approvals

Section 404 Permit: It is anticipated that the temporary dewatering of Mill Creek will be authorized under Section 404 Nationwide Permit 33 (Temporary Construction Access and Dewatering). We are, therefore, requesting the issuance of a Nationwide Permit 33 authorizing the temporary dewatering of Mill Creek. It is also anticipated that the relocation of utilities will be authorized under Section 404 Nationwide Permit 12 (Utility Line Activities; Activities required for the construction, maintenance, and repair of utility lines and associated facilities). All other aspects of this project are being processed by the Federal Highway Administration as a "Categorical Exclusion" in accordance with 23 CFR § 771.115(b). The NCDOT requests that these activities be authorized by a Nationwide Permit 23 (FR number 10, pages 2020-2095; January 15, 2002).

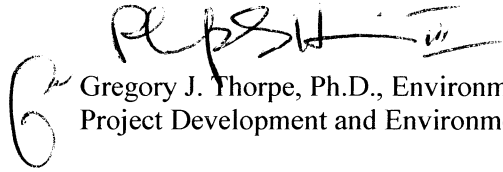
Section 401 Permit: We anticipate 401 General Certifications numbers 3403 and 3366 will apply to this project. In accordance with 15A NCAC 2H .0501(a) we are providing two copies of this application to the North Carolina Department of Environmental and Natural Resources, Division of Water Quality, for their records.

We anticipate that comments from the North Carolina Wildlife Resources Commission (NCWRC) will be requested prior to authorization by the Corps of Engineers. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers.

TVA: This project is located within the jurisdiction of the Tennessee Valley Authority (TVA). Therefore, an approval under Section 26a of the TVA Act will be required.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Michael Turchy at maturchy@dot.state.nc.us or (919) 715-1468.

Sincerely,

A handwritten signature in black ink, appearing to read "G. J. Thorpe", with a large, stylized "G" on the left.

Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

cc:

Mr. John Hennessy, Division of Water Quality (2 copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. Harold Draper, TVA
Mr. Jay Bennett, P.E., Roadway Design
Mr. Omar Sultan, Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John F. Sullivan III, P. E., FHWA
Mr. J. J. Swain, P.E., Division Engineer
Mr. Roger Bryan, DEO
Mr. David Franklin, USACE, Wilmington (Cover Letter only)
Mr. John Wadsworth, P.E., Project Development Consultant Engineer

Office Use Only:

Form Version May 2002

USACE Action ID No. _____ DWQ No. _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

☒ Section 404 Permit☐

Riparian or Watershed Buffer Rules

☐ Section 10 Permit☐

Isolated Wetland Permit from DWQ

☐ 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested:
- Nationwide 12, 23 and 33

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:
- ☒

4. If payment into the North Carolina Wetlands Restoration Program (NCWRP) is proposed for mitigation of impacts (verify availability with NCWRP prior to submittal of PCN), complete section VIII and check here:
- ☐

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:
- ☐

II. Applicant Information

1. Owner/Applicant Information

Name: North Carolina Department of TransportationMailing Address: 1548 Mail Service Center, Raleigh, NC 27699Telephone Number: 919-733-7844Fax Number: 919-715-1501

E-mail Address: _____

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: N/A

Company Affiliation: _____

Mailing Address: _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Replacement of Bridge 740 over tributary to Mill Creek on SR 1319 (Johnston's School Rd) in Asheville.
2. T.I.P. Project Number or State Project Number (NCDOT Only): B-3616
3. Property Identification Number (Tax PIN): N/A
4. Location
County: Buncombe Nearest Town: Asheville
Subdivision name (include phase/lot number): _____
Directions to site (include road numbers, landmarks, etc.): Located on SR 1319 between intersections with Rash Rd. and Southern Railway, over Tributary to Mills Creek
5. Site coordinates, if available (UTM or Lat/Long): N35° 35.118' , W82° 36.582'
(Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
6. Property size (acres): N/A
7. Nearest body of water (stream/river/sound/ocean/lake): Tributary to Mills Creek
8. River Basin: French Broad
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application Urban local, with residential land dominant.
10. Describe the overall project in detail, including the type of equipment to be used: _____

Replacing single span bridge with a triple-barrel culvert using heavy mechanical highway construction equipment.

11. Explain the purpose of the proposed work: Investigations by the Bridge Maintenance Unit indicate that rehabilitation of the existing structures is not feasible due to age and deteriorated conditions. Bridge No. 740 carries a sufficiency rating of 50.7 out of a possible 100. This structure is considered functionally obsolete. Replacement of the bridge will result in safer and more efficient traffic operations.
-

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules.

N/A

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

N/A

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

Provide a written description of the proposed impacts: There will be no impacts to jurisdictional wetlands from the replacement of Bridge No. 740. However, construction around the bridge site will result in a small amount of permanent and temporary surface water fill due to dewatering and the installation of a triple-barrel culvert.

1. Individually list wetland impacts below:

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.

** 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at <http://www.fema.gov>.

*** List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: 0

Total area of wetland impact proposed: 0

2. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
1 (12+02-L-)	Permanent	119.0 feet	Trib. to Mills Creek	2.0 feet	Perennial
1 (12+02-L-)	Temporary	55.0 feet	Trib. to Mills Creek	2.0 feet	Perennial

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included.

** Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at www.usgs.gov. Several internet sites also allow direct download and printing of USGS maps (e.g., www.topozone.com, www.mapquest.com, etc.).

Cumulative impacts (linear distance in feet) to all streams on site: 119.0 feet of permanent surface water impact and 55.0 feet of temporary surface water impact Cumulative impacts total 174.0 linear feet.

3. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below:

Open Water Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Name of Waterbody (if applicable)	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: fill, excavation, dredging, flooding, drainage, bulkheads, etc.

4. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): ☐ uplands ☐ stream ☐ wetlands

Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): N/A

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): _____

Size of watershed draining to pond: _____ Expected pond surface area: _____

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts.

The selected design was chosen because a good off-site detour is available, it has fewer impacts on adjacent residential properties, and it will create comparatively lower environmental impacts.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on March 9, 2000, mitigation will be required when necessary to ensure that adverse effects to the aquatic environment are minimal. Factors

including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCWRP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

N/A

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

Amount of stream mitigation requested (linear feet): N/A

Amount of buffer mitigation requested (square feet):

Amount of Riparian wetland mitigation requested (acres):

Amount of Non-riparian wetland mitigation requested (acres):

Amount of Coastal wetland mitigation requested (acres):

Environmental Documentation (required by DWQ)

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes ☒ No ☐

If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?

Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.

Yes ☒ No ☐

If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter.

Yes ☒ No ☐

IX. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)?

Yes ☐ No ☒ If you answered "yes", provide the following information:

Identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
Total			

* Zone 1 extends out 30 feet perpendicular from near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Conservation Easement, Riparian Buffer Restoration / Enhancement, Preservation or Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0260.

X. Stormwater (required by DWQ)

Describe impervious acreage (both existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property.

XI. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

XII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

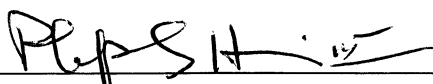
Yes ☐ No ☒

Is this an after-the-fact permit application?

Yes ☐ No ☒

XIII. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

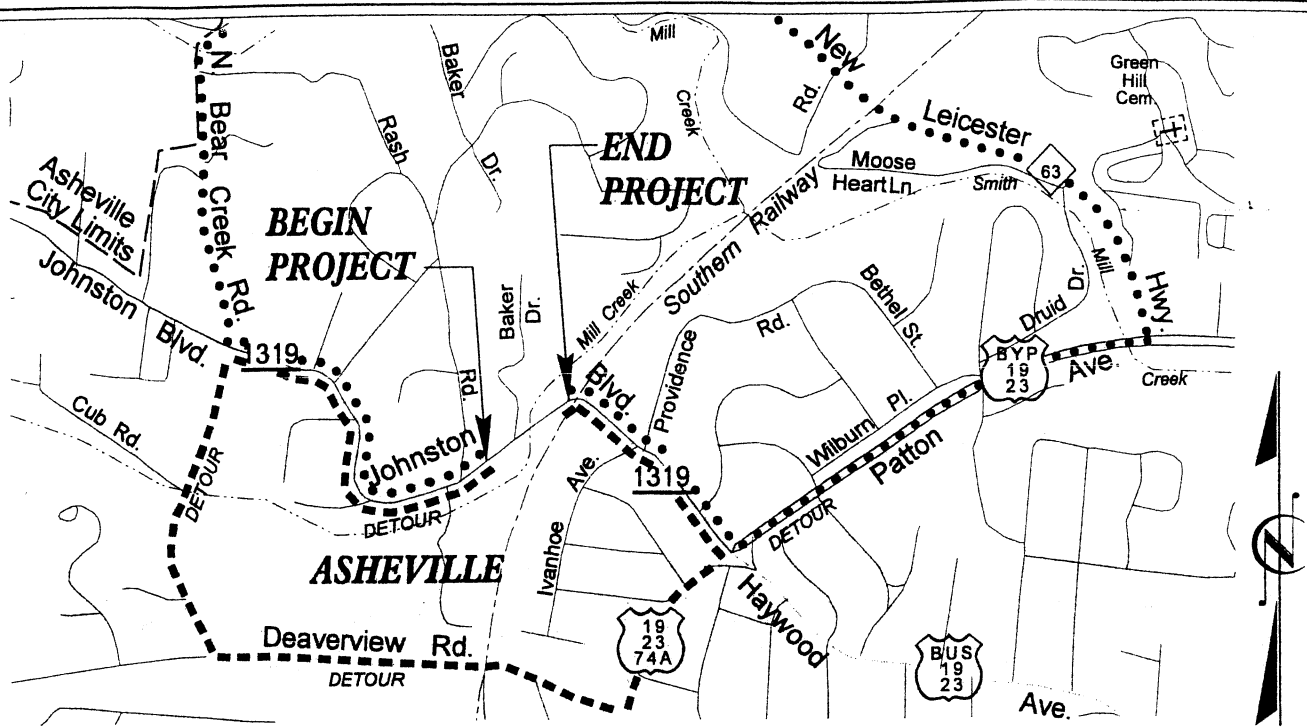


Applicant/Agent's Signature

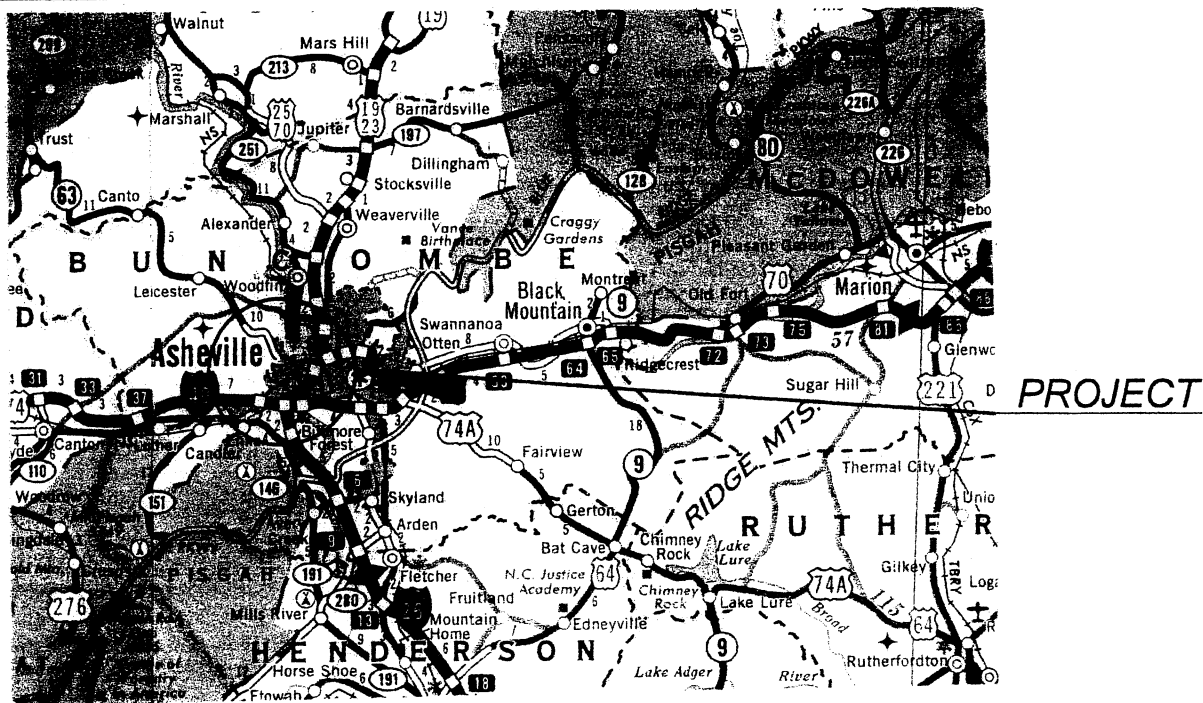
4/13/04

Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)



PORTION OF BUNCOMBE COUNTY MAP



PORTION OF STATE MAP

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

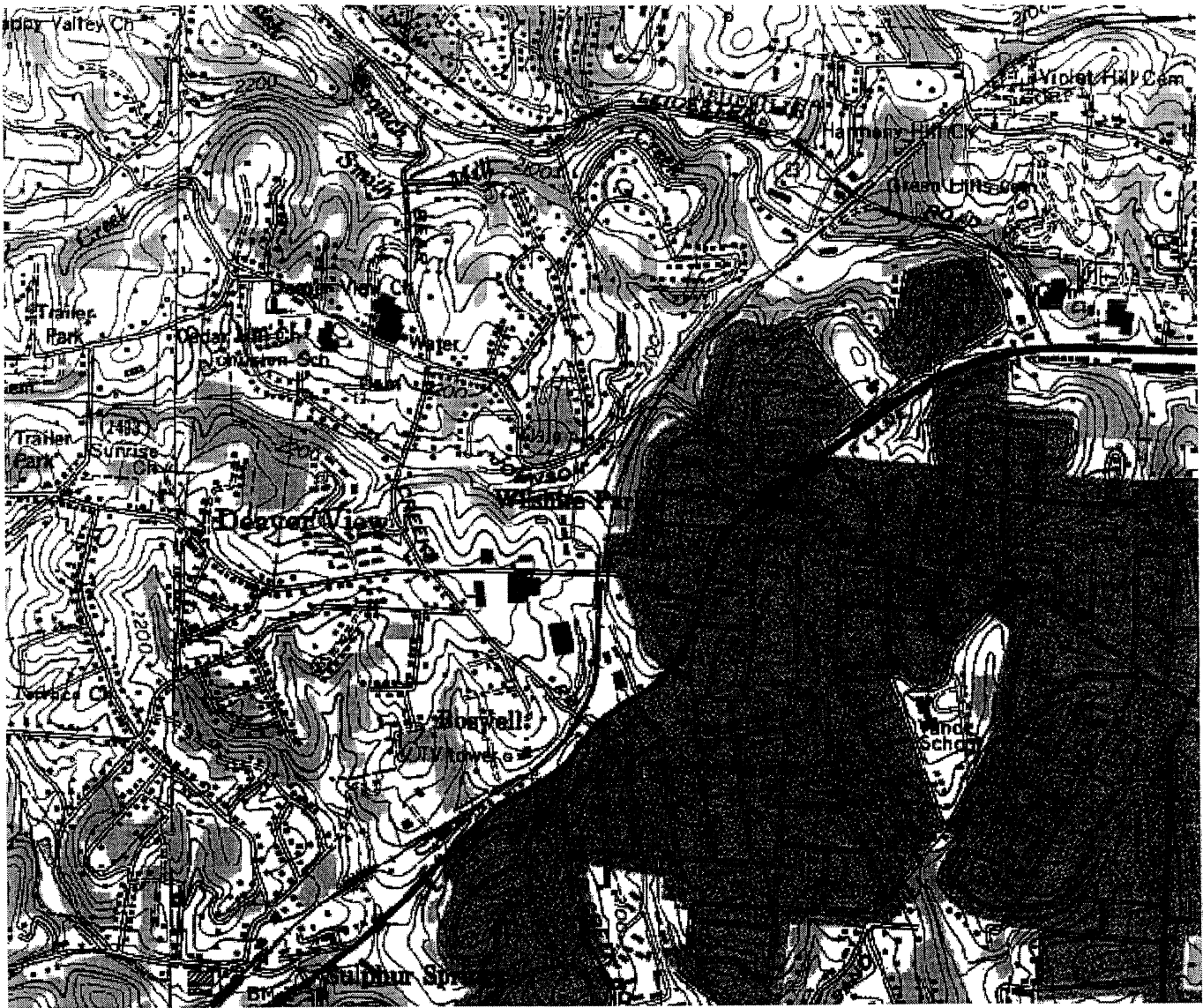
BUNCOMBE COUNTY
8.2844101 (B-3616)
REPLACEMENT BRIDGE NO.740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD.)
OVER TRIB TO MILL CREEK

WETLAND IMPACTS

SCALE AS SHOWN

10/15/2002

SHEET 1 OF 7



QUAD MAP OVERLAY

WETLAND SITE MAP

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BUNCOMBE COUNTY
8.2844101(B-3616)
REPLACEMENT BRIDGE NO.740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD)
OVER TRIB TO MILL CREEK



0 1/4 1/2
SCALE IN MILES

SCALE AS SHOWN

10/15/2002

SHEET 2 OF 7

WETLAND

LEGEND

— WLB — WETLAND BOUNDARY

WLB
WLB
WETLAND

F F DENOTES FILL IN WETLAND

S S DENOTES FILL IN SURFACE WATER

P P DENOTES FILL IN SURFACE WATER (POND)

T T DENOTES TEMPORARY FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

TS TS DENOTES TEMPORARY FILL IN SURFACE WATER

••••• DENOTES MECHANIZED CLEARING

— FLOW DIRECTION

TB TOP OF BANK

WE EDGE OF WATER

C PROP. LIMIT OF CUT

F PROP. LIMIT OF FILL

▲ PROP. RIGHT OF WAY

NG NATURAL GROUND

PL PROPERTY LINE

TDE TEMP. DRAINAGE EASEMENT

PDE PERMANENT DRAINAGE EASEMENT

EAB EXIST. ENDANGERED ANIMAL BOUNDARY

EPB EXIST. ENDANGERED PLANT BOUNDARY

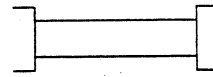
▽ WATER SURFACE

x x x x x
x x x x x LIVE STAKES

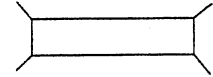
~ BOULDER

— CORE FIBER ROLLS

SDG SPECIAL DITCH GRADE



PROPOSED BRIDGE



PROPOSED BOX CULVERT



PROPOSED PIPE CULVERT

(DASHED LINES DENOTE EXISTING STRUCTURES)

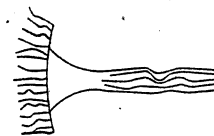
12"-48" PIPES
54" PIPES & ABOVE



SINGLE TREE



WOODS LINE



DRAINAGE INLET



ROOTWAD



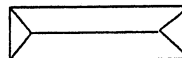
RIP RAP



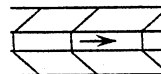
ADJACENT PROPERTY OWNER OR PARCEL NUMBER IF AVAILABLE



PREFORMED SCOUR HOLE (PSH)



LEVEL SPREADER (LS)



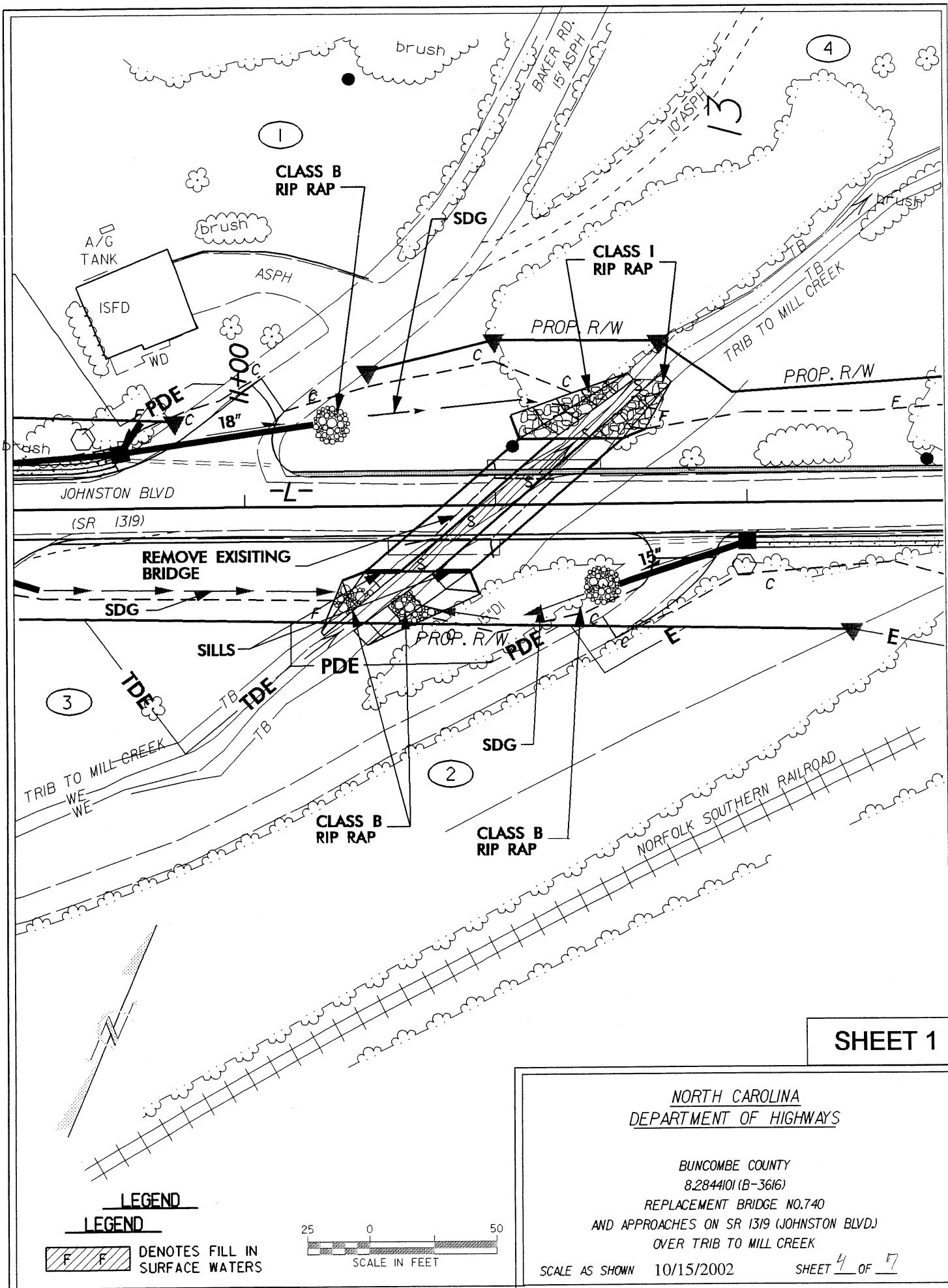
GRASS SWALE

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

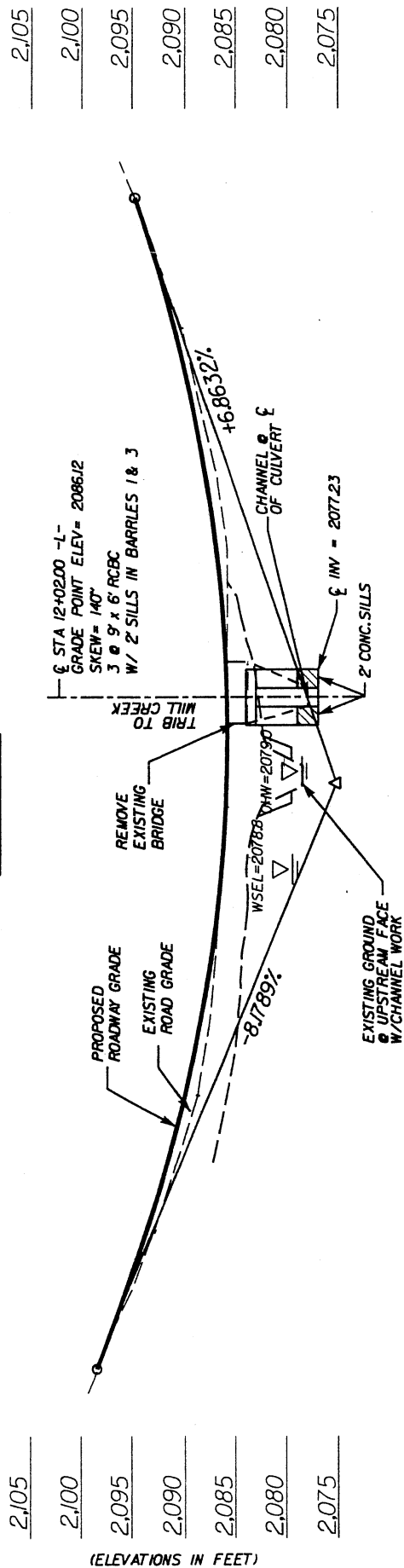
BUNCOMBE COUNTY
8.2844101 (B-3616)
REPLACEMENT BRIDGE NO.740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD.)
OVER TRIB TO MILL CREEK

SCALE AS SHOWN 10/15/2002

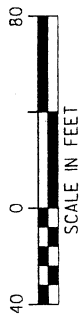
SHEET 3 OF 7



PI = 11+60.00
EL = 2,075.45
Ds = 30 mph
K = 38
VC = 570.00



SITE 1
-L- LINE PROFILE



NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BUNCOMBE COUNTY
8.2844101 (B-3616)
REPLACEMENT BRIDGE NO. 740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD)
OVER TRIB TO MILL CREEK

SCALE AS SHOWN 10/15/2002

SHEET 5 OF 7

SUMMARY OF AFFECTED PROPERTY OWNERS

[illegible]

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

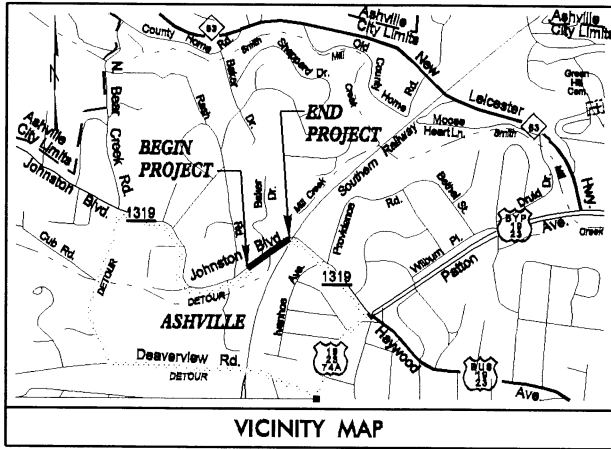
BUNCOMBE COUNTY
82844101(B-3616)
REPLACEMENT BRIDGE NO.740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD)
OVER TRIB TO MILL CREEK

SCALE AS SHOWN

SHEET 6 OF 7

9/09/99

See Sheet 1-A For Index of Sheets

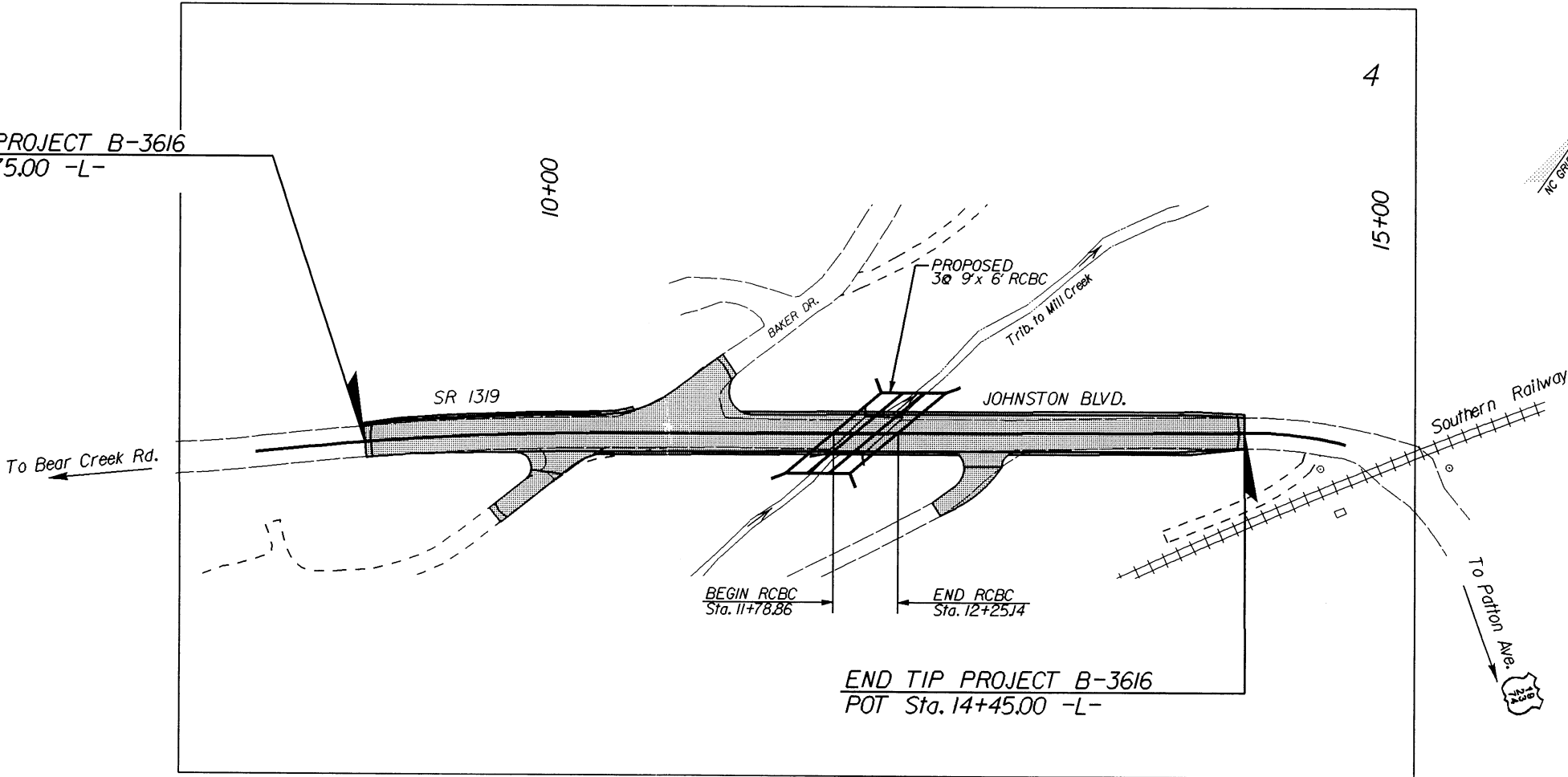


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
BUNCOMBE COUNTY

LOCATION: REPLACEMENT OF BRIDGE NO. 740 AND
APPROACHES ON SR 1319 (JOHNSTON BLVD.)
OVER TRIBUTARY TO MILL CREEK
TYPE OF WORK: GRADING, PAVING, DRAINAGE, GUARDRAIL
& CULVERT

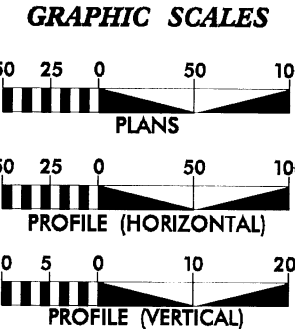
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3616	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33166.1.1	BRZ-1319(11)	PE	
33166.2.1	BRZ-1319(11)	R/W & UTIL	
33166.3.1	BRZ-1319(11)	CONST.	

BEGIN TIP PROJECT B-3616
POC Sta. 8+75.00 -L-



END TIP PROJECT B-3616
POT Sta. 14+45.00 -L-

**DESIGN EXCEPTION FOR DESIGN SPEED REQUIRED



DESIGN DATA	
ADT 2003 =	5,500
ADT 2025 =	7,300
DHV =	8 %
D =	65 %
T =	3 % *
V =	40 MPH**
* TTST 1 %	DUAL 2 %
**	

PROJECT LENGTH	
LENGTH OF ROADWAY T.I.P. PROJECT B-3616	= 0.099 MI.
LENGTH OF STRUCTURE T.I.P. PROJECT B-3616	= 0.009 MI.
TOTAL LENGTH OF T.I.P. PROJECT B-3616	= 0.108 MI.



Prepared in the Office of:
Stantec Consulting Inc.
Suite 300, 801 Jones Franklin Road
Raleigh, NC U.S.A.
27606
Tel. 919.251.6866 Fax. 919.251.7024
www.stantec.com

2002 STANDARD SPECIFICATIONS	KEVIN J. VAN METRE, PE PROJECT ENGINEER
RIGHT OF WAY DATE: AUGUST 15, 2003	KEITH F. HUDSON PROJECT DESIGN ENGINEER
LETTING DATE: AUGUST 17, 2004	
NCDOT CONTACT:	CATHY S. HOUSER, PE PROJECT ENGINEER - DESIGN SERVICES

HYDRAULICS ENGINEER	P.E.
SIGNATURE:	
ROADWAY DESIGN ENGINEER	P.E.
SIGNATURE:	

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA	P.E.
STATE DESIGN ENGINEER	
DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	
APPROVED DIVISION ADMINISTRATOR	DATE

16-FEB-2004 13:44
I:\FEB-2004\13:44\B3616\B3616_P01.DWG
I:\FEB-2004\13:44\B3616\B3616_P01.DWG

CONTRACT: C 200908 TIP PROJECT: B-3616

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ BP
Property Corner	-----
Property Monument	□ ECU
Parcel/Sequence Number	②③
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing High Quality Wetland Boundary	----- HQ WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	-----

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
River Basin Buffer	----- RBB
Flow Arrow	-----
Disappearing Stream	-----
Spring	-----
Swamp Marsh	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	-----
Switch	-----
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	-----
Existing Right of Way Marker	-----
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Utility Easement	----- PUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Wheel Chair Ramp	----- WCR
Curb Cut for Future Wheel Chair Ramp	----- CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equallity Symbol	-----
Pavement Removal	-----

VEGETATION:

Single Tree	-----
Single Shrub	-----
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	----- CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	----- S
Storm Sewer	----- S

UTILITIES:

POWER:	
Existing Power Pole	-----
Proposed Power Pole	-----
Existing Joint Use Pole	-----
Proposed Joint Use Pole	-----
Power Manhole	----- P
Power Line Tower	-----
Power Transformer	-----
U/G Power Cable Hand Hole	-----
H-Frame Pole	-----
Recorded U/G Power Line	----- P
Designated U/G Power Line (S.U.E.*)	----- P

TELEPHONE:

Existing Telephone Pole	-----
Proposed Telephone Pole	-----
Telephone Manhole	----- T
Telephone Booth	-----
Telephone Pedestal	-----
Telephone Cell Tower	-----
U/G Telephone Cable Hand Hole	-----
Recorded U/G Telephone Cable	----- T
Designated U/G Telephone Cable (S.U.E.*)	----- T
Recorded U/G Telephone Conduit	----- TC
Designated U/G Telephone Conduit (S.U.E.*)	----- TC
Recorded U/G Fiber Optics Cable	----- T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	----- T FO

WATER:

Water Manhole	----- W
Water Meter	-----
Water Valve	-----
Water Hydrant	-----
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	----- A/G Water

TV:

TV Satellite Dish	-----
TV Pedestal	-----
TV Tower	-----
U/G TV Cable Hand Hole	-----
Recorded U/G TV Cable	----- TV
Designated U/G TV Cable (S.U.E.*)	----- TV
Recorded U/G Fiber Optic Cable	----- TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	----- TV FO

GAS:

Gas Valve	-----
Gas Meter	-----
Recorded U/G Gas Line	----- G
Designated U/G Gas Line (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

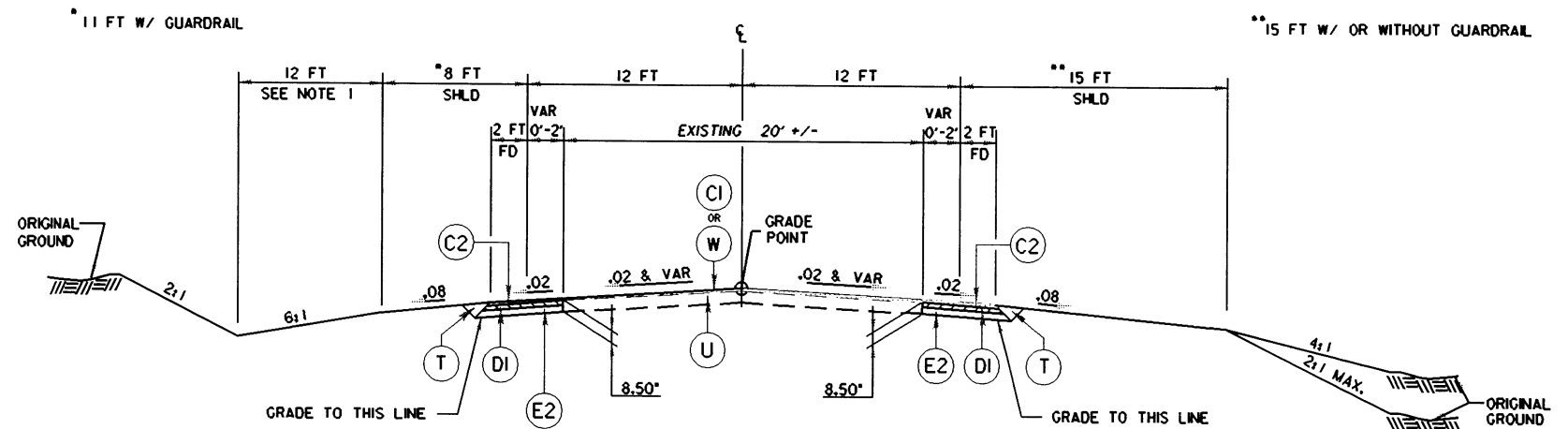
SANITARY SEWER:

Sanitary Sewer Manhole	----- SS
Sanitary Sewer Cleanout	-----
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
Recorded SS Forced Main Line	----- FSS
Designated SS Forced Main Line (S.U.E.*)	----- FSS

MISCELLANEOUS:

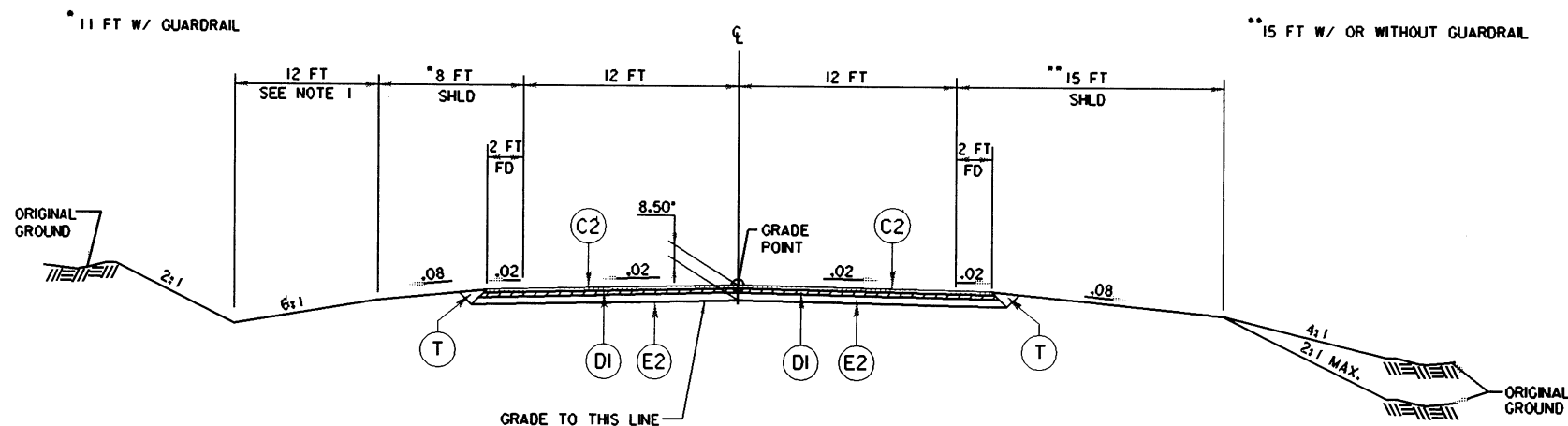
Utility Pole	-----
Utility Pole with Base	-----
Utility Located Object	-----
Utility Traffic Signal Box	-----
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	-----
A/G Tank; Water, Gas, Oil	-----
U/G Test Hole (S.U.E.*)	-----
Abandoned According to Utility Records	-----
End of Information	-----

8/17/99
16-FEB-2004 13:35
RAY:Roadway Plans\B3616_PDX_TYP.DGN
micuatson AT 105212418



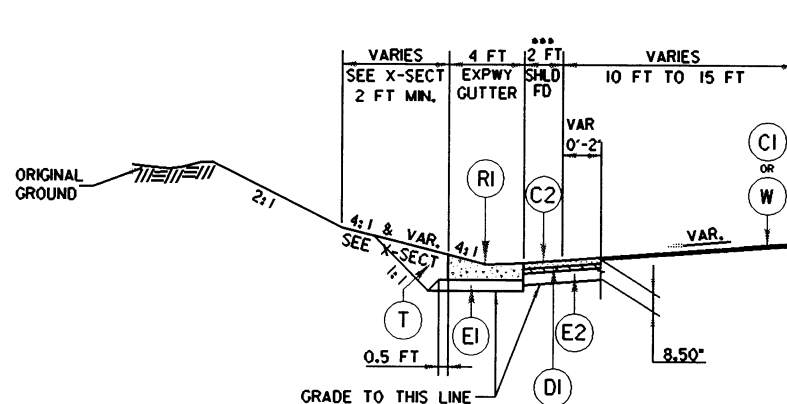
TYPICAL SECTION NO. 1

WIDENING & RESURFACING			
ROADWAY	FROM STATION	TO STATION	REMARKS
-L-	8+75.00	11+10.00	SEE INSERT
-L-	12+50.00	14+45.00	SEE INSERT



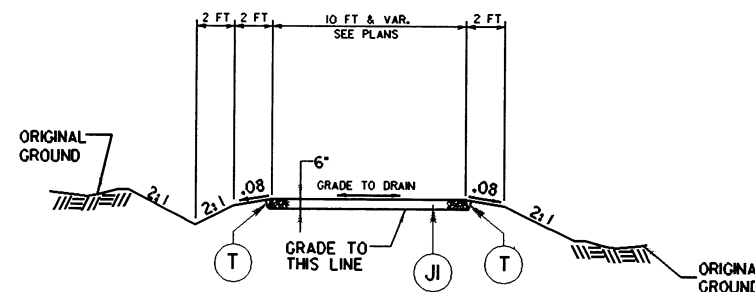
TYPICAL SECTION NO. 2

NEW PAVEMENT			
ROADWAY	FROM STATION	TO STATION	REMARKS
-L-	11+10.00	12+50.00	



INSERT A

ROADWAY	FROM STATION	TO STATION	SIDE
-L-	8+80.00	10+48.00	LT
-L-	9+00.00	9+68.00	RT***
-L-	13+02.00	14+15.00	RT



TYPICAL SECTION NO. 3

PRIVATE ENTRANCE

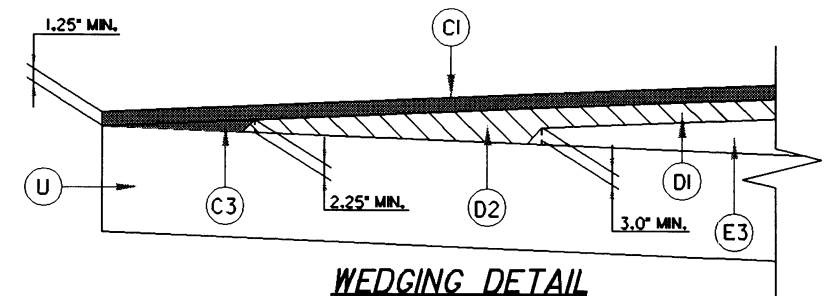
REMARKS

*** NO PAVED SHOULDER AT THIS LOCATION

PROJECT REFERENCE NO.	SHEET NO.
B-3616	2
PAVEMENT DESIGN ENGINEER	ROADWAY DESIGN ENGINEER



Startec Consulting Services Inc.
801 James Franklin Road, Suite 300
Raleigh, NC 27606
Tel: 919.851.6866
Fax: 919.851.7034
www.startec.com



WEDGING DETAIL

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1.5" IN DEPTH.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.25" OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 3.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E2	PROP. APPROX. 3.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.
E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT GREATER THAN 5.5" IN DEPTH OR LESS THAN 3" IN DEPTH.
J1	PROPOSED 6" AGGREGATE BASE COURSE.
R1	CONCRETE EXPRESSWAY GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING (SEE DETAIL THIS SHEET)

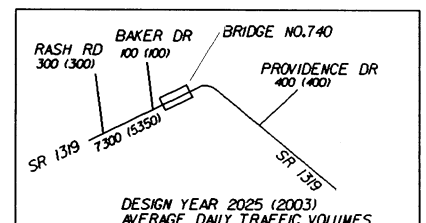
NOTES:

1. DISTANCE WILL VARY TO REACH THE DESIRED ELEVATION AS ESTABLISHED BY THE DITCH GRADE. (SEE PROFILES AND X-SECTIONS)

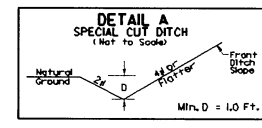
2. ALL PAVEMENT STRUCTURE SLOPES ARE 1:1 UNLESS OTHERWISE SPECIFIED.



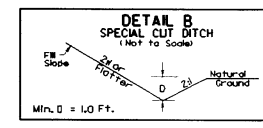
Stantec Consulting Services Inc.
801 Jones Franklin Road, Suite 300
Raleigh, NC 27606
Tel. 919.851.6866
Fax. 919.851.7024
www.stantec.com



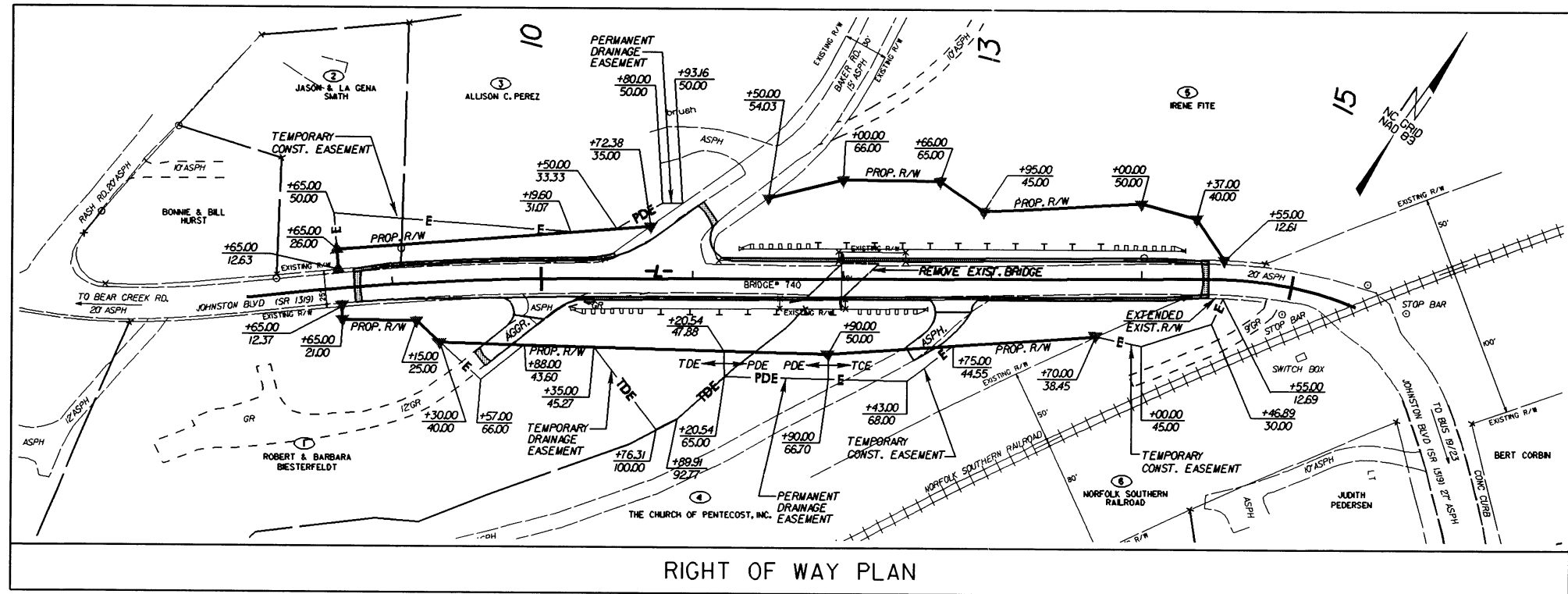
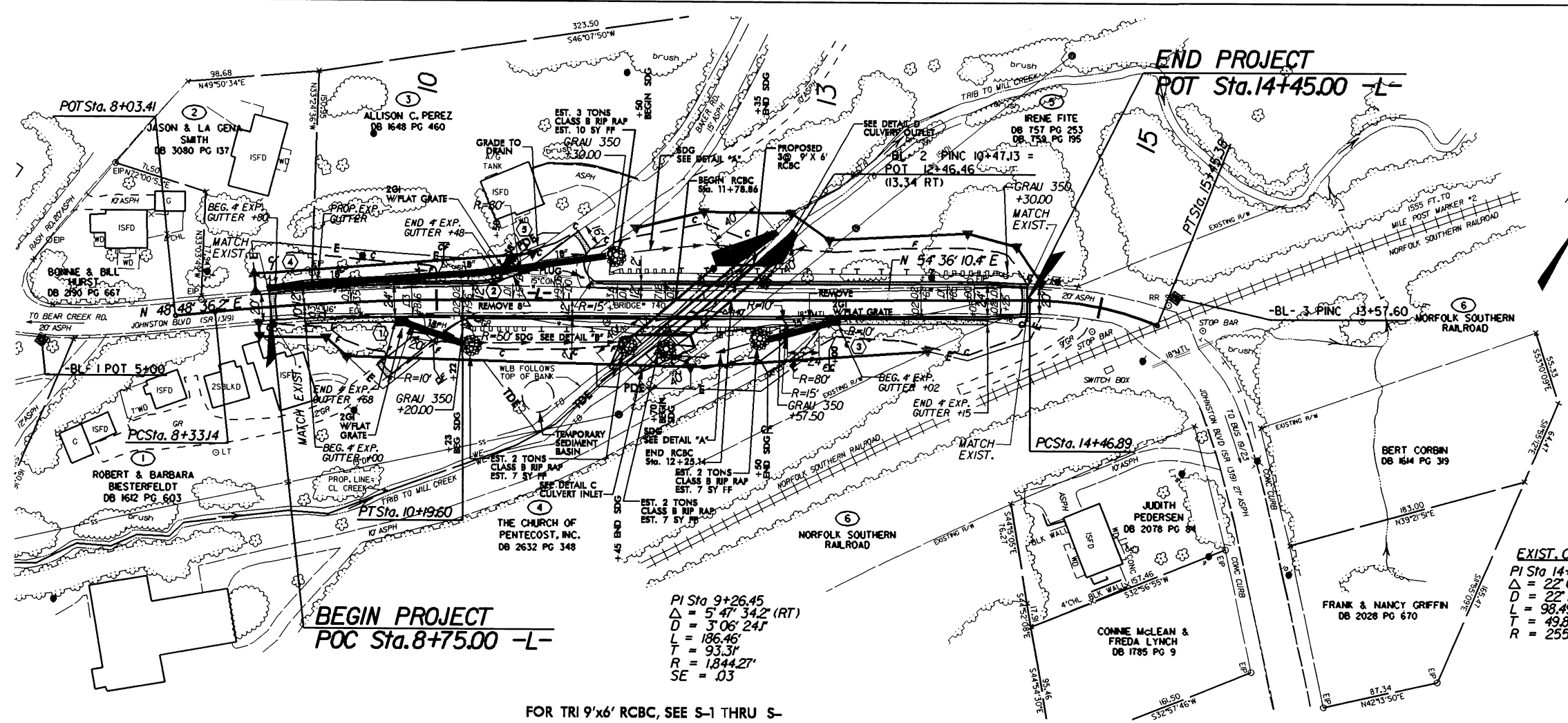
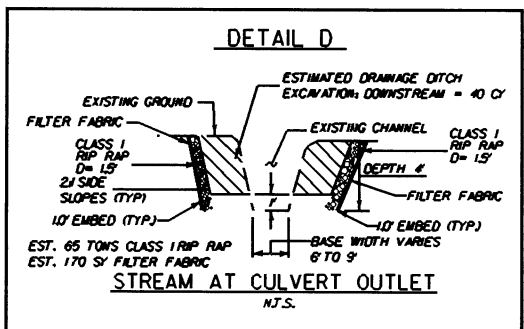
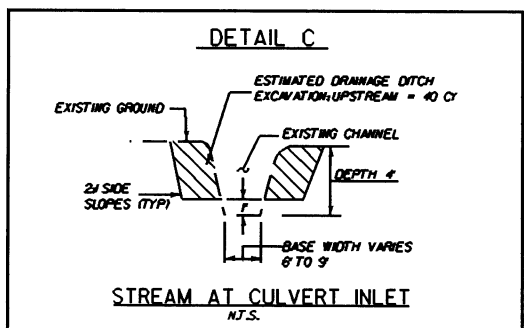
EXIST. CURVE
PI Sta 14+96.75
 $\Delta = 22^\circ 03' 37.8" (RT)$
 $D = 22^\circ 23' 52.0"$
 $L = 98.49'$
 $T = 49.86'$
 $R = 255.81'$



11+50 TO 12+35 -L- LEFT
11+70 TO 12+50 -L- RIGHT



10+23 TO 11+45 -L- RT

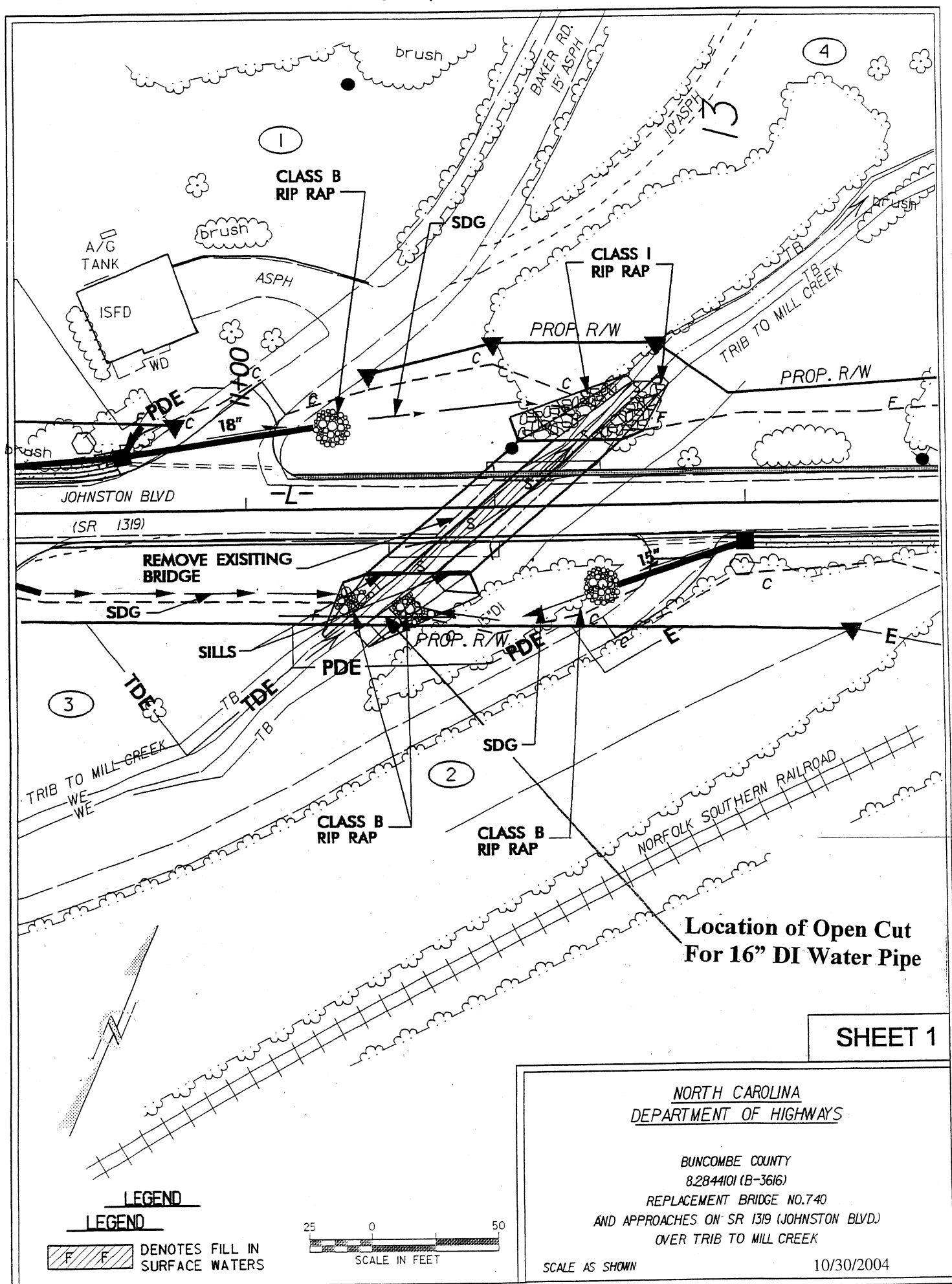


** DESIGN EXCEPTION FOR DESIGN SPEED REQUIRED

REFERENCE:
FOR PROFILE, SEE SHEET 5

DATE: 01/15/16
TIME: 10:00 AM
FILE: B36 16

Utility Impact Location



SHEET 1

NORTH CAROLINA
DEPARTMENT OF HIGHWAYS

BUNCOMBE COUNTY
82844101 (B-3616)
REPLACEMENT BRIDGE NO.740
AND APPROACHES ON SR 1319 (JOHNSTON BLVD.)
OVER TRIB TO MILL CREEK

SCALE AS SHOWN

10/30/2004

LEGEND

LEGEND

 DENOTES FILL IN SURFACE WATERS

25 0 50
SCALE IN FEET

DATE#
TIME#
FILE#



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

March 3, 2004

Mr. Lindsey Riddick
Environmental Supervisor
Office of Natural Resources
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Mr. Riddick:

Subject: Endangered Species Concurrence for Two Bridge Replacements in Buncombe County, North Carolina--B-3614, Bridge No. 300 on SR 1141 over Hominy Creek, and B-3616, Bridge No. 740 on SR 1319 over a Tributary to Mill Creek

As requested by the North Carolina Department of Transportation, we have reviewed the natural resources information and biological conclusions for federally protected species for the subject projects. We provide the following comments in accordance with the provisions of section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531-1543) (Act).

We have reviewed the updated survey information provided for impacts to the federally threatened Virginia spiraea (*Spiraea virginiana*). Given the information provided, we agree that there will be no effect to federally listed species and believe the requirements under section 7(c) of the Act are fulfilled regarding listed species for the subject projects. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this review, or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

If you have questions about these comments, please contact Ms. Marella Buncick of our staff at 828/258-3939, Ext. 237. In any future correspondence concerning these projects, please reference our Log Numbers 4-2-04-118 for B-3614 and 4-2-04-119 for B-3616.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian P. Cole".

Brian P. Cole
Field Supervisor